AJA HELO Plus Release Notes - v2.1

Firmware for HELO Plus

Introduction

HELO Plus v2.1 is a maintenance release. It is highly recommended that you update firmware to avoid any potential issues.

Be sure to consult the Installation and Operation Guide (user manual) for detailed information about features and configuration guidelines. The most current documentation, along with editable sample graphics projects (in Adobe Photoshop format) can always be found on the HELO Plus Support Page.

New Features in v2.1

- Added SRT Stream ID parameter to “Caller” mode.
- Added SRT “Listener” mode as a user selection.

Updates and Improvements in v2.1

- As of this version of software, SMB 1.0 (“CIFS”) is no longer supported. Any SMB 1.0 connections will be automatically converted to “Auto 2.x” upon installation of this software.
- The B-frame setting of each encoder is now displayed in the status page.
- In previous versions of firmware, the user was allowed to attempt to format an SD card that was write-protected. As expected, the format would fail, but the error message did not explicitly state why the failure occurred. A new message has been added to indicate that the SD card is write-protected.
- In previous versions of firmware an SD card that was write-protected would not list its clips in the WebUI. This issue has been corrected.
- In previous versions of firmware, if the frame rate of an input signal was 59.94 or 60 frames per second, and encoder 1’s frame rate was set to “FULL”, the system would only allow the use of encoder 1, and a warning was generated on the webUI to let the user know that encoder 2 had been disabled. This behavior has been modified. In this version of firmware, under those same conditions, the Stream 2 output will be forced to use encoder 1 as its source, and the warning text will say “Stream 2 input overridden”. The same is true for the “Record Output” menu - the source will be forced to encoder 1 regardless of the prior setting and a second warning will be issued to let the user know that the Recorder input has been overridden.

- In previous versions of firmware, the “burger” or dropdown menu on the Scheduler page could disappear when an option was selected. This issue has been resolved.
- Occasionally, importing presets could produce an “Internal Error” alarm and fail to complete. This issue has been resolved.
- Clips recorded from 59.94 fps sources with the encoder set to run at ½ frame rate would not work as PlayToStream sources. This issue has been resolved.
- In previous versions of firmware, the system could lock up if an attempt was made to stream to Facebook and the system could not resolve the Facebook hostname. This issue has been resolved.
- In previous versions of firmware, the HELO Plus system name would not show up in any Ki Pro group page listing (a generic name was shown instead). This issue has been resolved.
- In previous versions of firmware, recordings made with ToD selected as the TC source would actually use the current Time of Day in Grass Valley, CA, USA. This issue has been resolved.
- In previous versions of firmware, if the system was set to use DHCP, then on startup or reboot of the system, the scheduler could report that a remote calendar could not be synced to. This issue has been resolved.
- In previous versions of firmware, formatting a previously unformatted USB or SD device would not enable the recording functionality - which is automatically disabled if the system detects that the recording media is unformatted. This issue has been resolved.
- In previous versions of firmware, the current local schedule would be erased when recalling a preset. This issue has been resolved.
- In previous versions of firmware, valid presets could occasionally fail to be imported into the system. This issue has been resolved.
- In previous versions of firmware, if an SMB target was rebooted during an active recording session, the recording would fail and HELO Plus would need to be restarted for further recordings to take place. While the file which was being recorded on the SMB share at the time of reboot will not be usable, HELO Plus will now re-recognize the SMB target once it has completed its boot sequence.
- In previous versions of firmware, if a user was performing a combined streaming and recording session, and a major network issue (such as the network cable being pulled, or the destination streaming server failing), then the recording would also fail. This issue has been corrected - the recording will now continue regardless of the state of the streaming season.

Known Issues and Limitations

- To use a Mac as an SMB target, SMB encryption/signing must be turned off on the Mac. To do this, open Terminal on the Mac and type
  <sudo defaults write /Library/Preferences/SystemConfiguration/com.apple.smb.server SigningRequired -bool FALSE>
  (without the opening and closing <>) at the prompt. You will be asked to enter the administrator password and after entering it, SMB encryption/signing will be turned off. The Mac can then be used as an SMB target. More discussion on this topic can be found on the Apple support site at https://discussions.apple.com/thread/250486055?sortBy=best
- If a streaming session is started when the selected DNS service is not available, the system wil report "Network Name not found" will be displayed even though the system will start to stream its output. The workaround is to always ensure that the DNS service is active before starting a streaming session.
- Customers should not use a USB hub to connect a HELO Plus to USB media. Use of a hub may cause operational issues and prevent the USB drive from being discovered by the HELO Plus.
- Enabling segmented recording while using B-frames is not recommended. While the system accurately encodes all incoming frames, available "off-the-shelf" players will sometimes skip a frame at the end or start of a segment if B-frames are enabled. The workaround is to set the number of B-frames on an encoder to zero if the encoder is being used as the source of segmented recordings.
- Recording from an encoder that has Frame Rate set as anything other than "Full" is not recommended. Recordings made with the Frame Rate set to "Half" or "Quarter" may not be playable by HELO Plus, and may not show up in a clip list (since they're not playable), while others might. For example, a 1080p5994 signal, when set to half frame rate will record as 1080p2997, which is playable by HELO Plus and therefore shows up in the clip listing. If, however, the frame rate parameter for that encoder is set to "Quarter", any recording will be made at 1080p14.985. External players may be able to play that clip back, but as it is not a broadcast standard, HELO Plus cannot play the clip, nor will it show up in any clip listing.
- 4-channel audio is not available on RTMP streams. This is not a limitation of HELO Plus - it is a limitation of the RTMP protocol. The system will automatically disable "Audio Source 1 and 2" for any output that is streaming via RTMP. When authentication is enabled and a user is logged into HELO Plus in a browser session, they must quit the browser application in order to log out. Please note that merely closing the browser tab or window will not log the user out.
- Scrolling a drive's clip list while recording to that drive is not recommended. Current behavior is that the system will jump back to the top of the list every time the information about the active recording is updated.
- An invalid or unavailable record destination will prevent recording from starting. This is true even if 2 recording destinations are configured, and the second destination is valid.
- When recording using the "Long Single Segment" mode, if the recording duration reaches 12 hours (the maximum value for this mode), the recording will terminate with a "Recording Failed" alarm. This does

not mean that the recording is unplayable - it simply means that, since the recording was still in process when the maximum duration was reached. The user's intention to record longer than 12 hours has resulted in an internally terminated recording - so the system alarms that fact. The segment, in its entirety, is fully playable. Subject to available storage capacity, longer recordings can be made using the segmented recording feature.

- It should be noted that when switching SMB targets from one share to another or switching to an entirely new share, the responsiveness of that SMB share to the mount command is variable and – depending on the SMB device - can be quite slow. This slow response may cause the HELO Plus to raise some alarms until the share mount handshake has completed. These alarms, if thrown, will disappear once the SMB handshake has completed.
- Formatting of USB or SD media can be carried out directly on the HELO Plus – and indeed, that is the preferred option. However, it is also possible to format these devices on an external computer. If formatting in an external computer, it is important to ensure that the drive is formatted with a single exFAT partition which uses up the entire storage device. Having multiple partitions can cause unintended consequences and is strongly discouraged.
- HELO Plus records to local media formatted as FAT or exFAT (exFAT is preferred). USB or SD drives which are formatted as NTFS will be reported as unmountable. If a drive is formatted as APFS in a Mac, HELO Plus will ignore that APFS partition. However, while formatting drives as APFS, Mac computers also install a small (200MB) vFAT partition. If a USB or SD drive which has been formatted as APFS in a Mac is inserted into HELO Plus, the system will mount the vFat partition. This is too small for almost all recording activities. Therefore, users should not attempt to insert a drive which has been formatted as APFS in a Mac.
- HELO Plus supports recording to external SMB mounts, which can be dedicated servers, or computers running standard desktop operating systems. HELO Plus can automatically negotiate the SMB dialog to be used for communications, but users can elect to manually force SMB 2.0, 2.1 or 3.0. Customers using Mac computers should only use High Sierra or newer OS as SMB targets. Note that auto mode will only negotiate up to SMB 3.0.2. If a customer wants to use SMB 3.1.1, they must manually select that option.
- When using SMB, the HELO Plus can only write to the top level share folder (i.e.\\<server name>\top level folder) - and only if that top level share gives the HELO Plus read/write permissions. The system is unable to write to subdirectories of that top level folder, regardless of permissions set on that subdirectory.
- Customers using the Firefox browser hosted on a Linux machine, may detect some sluggishness in response when the WebUI mini-monitor is enabled. The workaround is to use a browser from another manufacturer.
- HELO Plus has the ability to make longer recordings as a series of smaller files (“Segments’) rather than a single large file. This allows users to only download the segments of a long recording that are relevant to their final product, rather than having to download a much larger file. Each segment contains all of the essence that makes up the segment. HELO Plus records the audio portion of the segment as AAC essence. NLEs and DAWs vary dramatically in the way they handle AAC decoding, which may result in

audio “clicks” when those systems stitch the segments into a continuous longer segment. Should this be an issue, the workaround is to increase the length of the segments prior to recording.

- Depending on the SMB system being used, physically disconnecting an SMB share that is currently selected as the primary record destination can cause system issues which, on occasion, may require system reboot.
- Customers using VLC version 3.0.17 or later on Windows or macOS may occasionally see repeated or missing CC letters when viewing an RTSP stream. Prior versions of VLC on either platform do not exhibit this issue. The workaround is to use a prior version of VLC, or to use another vendor’s stream viewer.
- Customers who view HLS streams via Safari’s native HLS support will only be able to listen to one audio source at a time.
- If the chosen NTP server should fail, or somehow become unresponsive, HELO Plus will not automatically reconnect to it when it becomes available again. Customers can manually reconnect to the NTP server by highlighting its name on the System page and pressing <Enter>.
- When using PlayToStream in the absence of a locked video signal, the VSG format must be compatible with the PlayToStream clip format. If this is not done (or if the VSG format is set to Auto and an incompatible signal was most recently applied) PlayToStream will fail.
- It is possible to configure an RTMP stream to use an encoder which is set for ¼ frame rate with B frames turned on, which will result in a non-decodable stream. This issue will be addressed in a future release of software.
- Customers using Safari 17.5 on an Apple silicon computer under Sonoma may occasionally experience an issue where a software input is reported as failing during the verification phase. The workaround is to refresh the browser and perform the update again.
- If HELO Plus is being used in a Group operation, and is set as the Group Leader, setting another device in the group to be leader (in that device’s own webUI) may sometimes fail to clear the Leader button on the HELO Plus. Refreshing the browser for the HELO Plus will correct the issue.

Technical Support

AJA Technical Support is free and available to help you answer questions or resolve issues with any of your AJA products.

To contact AJA Technical Support:

Email: support@aja.com
Phone: +1-530-271-3190
Fax: +1-530-274-9442
Web: https://www.aja.com/support/contact
Shipping: 180 Litton Dr. Grass Valley, CA 95945 USA